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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,664	07/14/2006	Sai Shankar Nandagopalan	US030247US3	2487
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EXAMINER OBAYANJU, OMONIYI				
ART UNIT 2617		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,664

Applicant(s)

NANDAGOPALAN, SAI SHANKAR

Examiner

OMONIYI A. OBAYANJU

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/15/2010 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

However, the Examiner further reviewed Applicant's amendments and arguments which have been found not persuasive.

First, in regards to the Applicant's amended and/or added limitation i.e. "within one session", to distinguish the present claimed subject matter from the applied prior art reference.

In response the Examiner respectfully disagrees with Applicant's amendment and/or arguments to distinguish the present claimed invention. As clearly

shown in **fig. 2** of the prior art reference (Cimini Jr), the mobile terminals are within one session (in communication) with the access point (AP). It is readily understood and/or known by one of ordinary skill in the art and as shown in **fig. 2**, that a mobile terminal in communication with a network device i.e. access point, are in at least one or more communication sessions. Therefore the current amendments presented do not overcome the rejections of the prior art reference (Cimini Jr).

Second, In regards to the independent claims, the Applicant further specifically argued that the prior art reference (Cimini Jr) *"is not concerned about the how much data needs to be transmitted within one session by each station, but rather only concerned about the nodes' transmission rate"* as stated in the at least claimed limitations; *"determining an allocated transmission time for each of the wireless stations based on a set physical transmission rate, wherein each of the wireless stations has individually allocated transmission time based on at least the amount of data that needs to be transmitted within one session by each of the wireless stations"*.

In response the Examiner respectfully disagrees with Applicant's argument. As stated by the Applicant **"transmission rate"** which can be simply and/or reasonably interpreted as the rate of data transmission in a communication session between a mobile terminal and a network device. Thus, the Applicant's broadly claimed limitation has not been specifically define to overcome the prior art rejection. The claim does not uniquely and particularly define the limitation **"the amount of data that needs**

to be transmitted within one session by each of the wireless stations" so as to distinguish from the applied prior art. During patent examination, the claims must be given their broadest reasonable interpretation. See also MPEP §2111. The limitation **"the amount of data that needs to be transmitted within one session by each of the wireless stations"** is broadly claimed, therefore, broadly interpreted. Broadly interpreted, **"the amount of data that needs to be transmitted within one session by each of the wireless stations"** is fairly characterized as the amount of data (rate) that needs to be transmitted (transmission rate) within one session (communication between a mobile terminal and an access point) by each of the wireless stations (fig. 2, and fig. 10, pp0057-pp0060).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11, and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Cimini, JR. et al. (US Publication No. 20030133427).

As to **claim 1**, Cimini teaches a method of providing bandwidth fairness in a wireless network that includes a plurality of wireless stations (abs, and pg. 4, pp0049, lines 7-8), the method comprising: determining bandwidth requirement (abs, and pg. 3, pp0036, lines 1-8) for a particular service interval (pg. 1, pp0005 lines 13-16) for each of the wireless stations (fig. 1b, #12a,b,c); determining an (different, fig. 5) allocated transmission time for each of the wireless stations based on a set physical transmission rate (pg. 3, pp0034 lines 14-16, and pp0037, lines 1-9), wherein each of the wireless stations has individually allocated transmission time based on at least the amount (size of packet) of data that needs to be transmitted within one session by each of the wireless stations (fig. 2, and fig. 10, pp0057-pp0060); and fragmenting a packet by at least one of the wireless stations if the at least one wireless station transmits at a transmission rate that is lower than the set physical transmission rate (pg. 5, pp0060, lines 1-4 and pp0048, lines 13-15).

As to **claim 2**, Cimini teaches wherein the allocated time for each of the plurality of wireless stations is the proportional to the quantity of data to be sent by the respective stations (abs) during a service interval (pg. 1, pp0005 lines 13-16).

As to **claim 3**, Cimini teaches wherein for each of the at least one wireless station a number of the fragments is equal to the set physical transmission rate divided by the lower transmission rate (pg. 4, pp0042 lines 7-11).

As to **claim 4**, Cimini teaches wherein the allocated transmission time is equal to the total data of all packets generated in the beacon interval divided by the set physical transmission rate (pg. 4, pp0049).

As to **claim 5**, Cimini teaches wherein the wireless network is a multiple physical transmission rate wireless network (pg. 2, pp0030, lines 5-10).

As to **claim 6**, Cimini teaches wherein the wireless network is a Generalized Packet Radio Service (GPRS) network (pg. 1, pp0003, lines 11-12, Transmitting data at different transmitting rate is equivalent to (GPRS) network).

As to **claim 7**, Cimini teaches wherein the wireless network is a Wireless Local Area Network (WLAN) (pg.1, pp0003, line 1).

As to **claim 8**, Cimini teaches wherein each of the at least one wireless stations transmits all remaining fragments after all wireless stations that transmit at the set physical transmission rate have completed transmitting their packets (pg. 5, pp0062, lines 1-5).

As to **claim 9**, Cimini teaches further comprising maintaining a particular quality of service QoS for each of the wireless stations that maintain transmission at the set physical transmission rate during a service interval (pg. 3, pp0037 lines 8-15).

As to **claim 10**, Cimini teaches wherein each of the at least one wireless stations transmits all remaining fragments (fragments equivalent to packet) until its physical transmission rate is greater than the set physical transmission rate (pg.5, pp0057, lines 1-7).

As to **claim 11**, Cimini inherently teaches similar limitations in the method of claim 1 as discussed above.

As to **claim 14**, Cimini teaches wherein the number of fragments is equal to the lower transmission rate divided by the set transmission rate (pg. 4, pp0042 lines 7-11).

As to **claim 15**, Cimini teaches wherein the transmission time is equal to the total data of all packets generated in the beacon interval divided by the set physical transmission rate (pg. 4, pp0049).

As to **claim 16**, Cimini teaches wherein each of the plurality of wireless stations is adapted to transmit at multiple physical transmission rates (pg. 2, pp0030, lines 5-10).

As to **claim 17**, Cimini teaches wherein the wireless network is a Generalized Packet Radio Service (GPRS) network (pg. 1, pp0003, lines 11-12, Transmitting data at different transmitting rate is equivalent to (GPRS) network).

As to **claim 18**, Cimini teaches where the wireless network is a Wireless Local Area Network (WLAN) (pg.1, pp0003, line 1).

As to **claim 19**, Cimini teaches wherein a particular quality of service (QoS) is maintained for each of the plurality of wireless stations that transmit at the set physical transmission rate for the entire service interval (pg. 3, pp0037 lines 8-15).

As to **claim 20**, Cimini teaches wherein each of the wireless stations that change their transmission rate to a lower transmission rate than the set physical transmission rate during the service interval (pg. 1, pp0005 lines 13-16) send their remaining fragments after all wireless station that transmit at the set transmission rate have completed transmission of their respective packets (pg. 5, pp0062, lines 1-5).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMONIYI A. OBAYANJU whose telephone number is (571)270-5885. The examiner can normally be reached on Mon - Fri, 7:30 - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinsong Hu can be reached on 571-272-3965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. A. O./
Examiner, Art Unit 2617

/Jinsong Hu/
Supervisory Patent Examiner, Art Unit 2617